DOCUMENT RESUME

ED 255 573 TM 850 216

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TITLE A Procedure for Implementing Detailed Grade Level Analysis by Local Curriculum Objectives Utilizing Standardized Instruments of Measure: A Comprehensive Case Study.
PUB DATE Apr 85
NOTE 27p.; Paper presented at the Annual Meeting of the National Council on Measurement in Education (Chicago, IL, April 1-3, 1985).
PUB TYPE Reports - Descriptive (141) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Educational Objectives; Elementary Secondary Education; Program Evaluation; Program Implementation; *School Districts; Standardized Tests; *Testing Programs; Test Interpretation; *Test Use; Test Validity
IDENTIFIERS Curricular Validity; *Elkhart Community Schools IN; Iowa Tests of Basic Skills; *Test Curriculum Overlap

ABSTRACT

This document traces the development of the testing and reporting system used in the Elkhart Community Schools (ECS), Indiana, from 1981 through 1985. Performance objectives were established when the program was initiated. Analyses of standardized test results were provided for teachers, principals, and central administrative staff. All school district staff members were to be involved in curriculum review, revision, and evaluation procedures. Several changes in school district policy were implemented to achieve the established goals. Program Evaluation Committees were established at the elementary and secondary levels. New testing procedures and methods of reporting scores were instituted. The Iowa Tests of Basic Skills (ITBS) item bank for each grade level was established. The requirements of the Indiana Educational Improvement Program were satisfied by the ECS testing program. The effects of the program on school curriculum at ECS are discussed. The problems involved in the testing program are examined. (DWH)

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ED255573

A PROCEDURE FOR IMPLEMENTING DETAILED GRADE LEVEL ANALYSIS BY LOCAL CURRICULUM OBJECTIVES UTILIZING STANDARDIZED INSTRUMENTS OF MEASURE

A Comprehensive Case Study

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Paper presented to

1985 NCME Annual Meeting
Palmer House Hotel
Chicago, Illinois

April 2, 1985

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INTRODUCTION

This report will attempt to trace chronologically the development of the testing and reporting system used in the Elkhart Community Schools, Elkhart, Indiana. For the sake of brevity this paper will begin at the 1981-82 school year and report to the present (1984-85 school year).

The Elkhart Community Schools (ECS) are comprised of two comprehensive high schools, each with a graduating class of approximately 400 students; three middle (grades 7-8) schools and 14 elementary schools. The school corporation (district) boundaries extend beyond the corporate city limits. The high schools and middle schools have recently undergone grade reorganization, which has affected the testing program to a degree. These changes will be mentioned only as they materially influence the testing/reporting program.

OBJECTIVES

When this program was initiated the basic components were specified in terms of performance objectives to be met by all persons and departments involved. These objectives are summarized below:

1. To provide teachers in the Elkhart Community Schools (ECS) with detailed (pupil by pupil w/in room) item analyses of all standardized test results in grades 3 through 11 within two weeks after the test administration date. All analyses to be based upon both national (test) and ECS curriculum objectives as well as national and locally developed norms..

2. To provide building principals with room and grade level item analyses of all standardized test results for their buildings.
3. To provide ECS central administrative staff with composite data regarding grade level analyses based upon item analyses of test results when analyzed by ECS curriculum objectives.
4. To provide teachers with year-to-year pupil progress profiles based upon standardized test results and analyses based upon ECS curriculum objectives.
5. To actively involve all staff members in curriculum review, revision and evaluation procedures.

IMPLEMENTATION

In order to achieve these goals it was necessary to implement several changes, which in many instances necessitated first changing school policy as established by the Board of School Trustees. These policies were changed in a planned manner and appropriate administrative procedures were implemented.

Establish Program Evaluation Committees. In accordance with the changed school policies the Coordinator of Program Evaluation established both Elementary and Secondary Evaluation Committees, together with a Steering Committee composed of both professional staff members and school patrons. The members of these several committees represented all of the schools and several of the secondary school departments. Administrators from both the building level as well as the central administrative office also were represented on these committees. Patrons were chosen to be

representative of the community organizations they represented, which had educational concerns.

These committees were composed as follows:

Elementary, Coordinator of Program Evaluation, Director of Elementary Education, Supervisor of Reading and Compensatory Programs, two principals and 14 teachers (one from each building).

Secondary, Coordinator of Program Evaluation, Director of Secondary Education, Coordinator of Secondary Guidance, Supervisor of Reading and Compensatory Programs, Asst. Program Director - Elkhart Area Career Center, two principals (one each, senior and junior high), eight teachers (four each, high school and junior high school).

Steering Committee, Coordinator of Program Evaluation, Directors of Secondary and Elementary Education, Supervisor of Reading and Compensatory Programs, Director of Data Processing-Research, two elementary teachers and two secondary teachers, Psychometrist, and the following members from the community: N.A.A.C.P., Chamber of Commerce Education Committee, League of Women Voters, P.T.A. Executive Council, and the Council on Aging.

During the initial year these committees dealt with several important problems which occurred, especially those involving new testing procedures and methods of reporting.

Transfer of Scoring Services. One of the first steps taken as a part of the change in the testing program was to transfer the scoring of tests from the publisher to the data processing center of Indiana University at South Bend (IUSB). The Elkhart Community Schools used the Iowa Tests of Basic Skills (ITBS),

published by Riverside Publishing Company for its standardized achievement testing in grades one through eight. (See Appendix A, p. 13, for a complete "overview" of the testing program). During the school year 1980-81 the multilevel edition of ITBS, which is administered in grades 3-8, was scored at IUSB, rather than by the Riverside Publishing Company. This resulted in much more detailed information being available for teachers, curriculum committees, building administrators and central office staff. IUSB furnished the ECS with system-wide, building and individual classroom printouts of each of the following aspects of the testing program and results:

1. Frequency Distributions
2. Item Analysis
3. Local as well as National Percentile Norms
4. Lists of student responses to each item in each test battery (item analyses)
5. Summaries of all scores on a building-to-building basis, as well as district-wide summaries

Because of the use of the IUSB computer it was possible for the ECS to utilize items from the language arts and mathematics sections of the tests for assessment of the students performance in relation to the ECS curriculum objectives. These items were identified by the curriculum committees as having the closest "match" to the instructional objectives at each grade level within the language arts and mathematics curriculum guides. By utilizing this local (IUSB) scoring service and analyses programs staff members are able to get a more accurate appraisal of student performance within the language arts and mathematics

programs.

Analysis by Objective. In order to effectively initiate one of the original goals it was determined that the need existed to match the ITBS test items with the curriculum objectives of the ECS - by grade and/or subject matter area. This task was undertaken by the different curriculum (subject area/grade level) committees. Different teachers and administrators were assigned different areas (no fewer than three persons per area). Each individual was asked to match the test item with the curricular objective for the particular subject/grade level test. If there was a lack of agreement between the three raters these items were discussed and agreement obtained or an assignment was made to one curricular objective. This process resulted in an identification of items on the ITBS which measured the curricular objectives of the ECS.

The final outcome of this process was the creation of an ITBS item bank for each grade level which measured (were identified with) those curricular objectives of the ECS. These were then reported to teachers, using student identification number (See Appendixes B-1 and B-2, pp. 14 and 15). During the early years all tests were administered during the Spring semester (April) and the results were reported to those teachers who administered the tests. The test results were usually delivered in early May. In the Fall (September/early October) new class lists were fed into the computer, the (April) test data were regrouped and the same results were then provided the teacher of the next grade for instructional use. This system, while moderately effective, was quite cumbersome (because of

inaccurate student identification (ID) numbers and "new grade" assignments), and resulted in the committees voting (elementary level) to administer the tests in the early Fall (late September) and have the results reported to the teachers (SY 84-85).

Building Level Reports. In addition to the data provided teachers principals also are provided many different types of reports. They are provided summary by grade and room reports. They are regularly asked what types of reports they want, and in what format they would like these reports. One thing in which they are interested is how their buildings compare with the system wide averages. These data are summarized for the building by subject area and grade. Comparisons are made for system-wide reports (See selected examples Appendix C-1 through C-4, pp. 16-19). Modification of reports and format is possible, based upon the requests of the principals. See appendix C-5 (p. 20) for an example of this type of modification (change from pie charts to histograms).

Finally administrators are provided the opportunity to ask for specific reports which may have applicability within their particular building or subject area. These are provided where possible. The use of the local (IUSB) computer has resulted in a great deal of flexibility in creating individual reports for specific analytical purposes.

Reporting to Parents. Reporting to parents has also improved. Summary sheets of test results are made available for individual conferences normally scheduled after the first reporting period (nine weeks). At that time parents are

presented with test data and teachers are encouraged, because of the availability of detailed analysis by curricular objective, to not only discuss the overall test results (See Appendix D, p. 21) but to discuss pupil learning and how the students identified weaknesses are being corrected. The pupil profile is used as a point of departure for instruction and the focus is placed upon individual learning, as measured by the standardized instruments. This pupil report form has undergone several revisions (based upon teacher/principal input) in order to effect better communication. This report is now based upon the range of scores within the standard error of measurement. It is anticipated that it will continue to undergo these revisions on a regular and continuing basis.

Comprehensive Assessment Program Planning System and Educational Improvement Program. The Comprehensive Assessment Program Planning System (CAPPS) was instituted by the State of Indiana in 1979. It required that school districts test students regularly once every three years (four times during the 12 year period), using instruments of their choice. The results of these educational assessments are reported to the Department of Public Instruction (recently renamed Department of Education).

The CAPPS program title was changed to Educational Improvement Program (EIP) in 1982. The basic requirements of the program remained the same after the name change.

The program described in this paper more than meets the requirements of CAPPS/EIP. Parents are provided reports of their child's academic assessment using national norms (Appendix D, p. 21). Again, these profile sheets offer an excellent basis for

focusing parent-teacher conferences upon educational improvement.

IMPACT ON CURRICULUM

This testing program has had several direct and observable impacts upon the program of the ECS. These are:

1. Teacher involvement in the testing program has been increased. Because of their involvement in the matching of items to curricular objectives, the prompt and immediate feedback of results, and the provision of student profile sheets for use in conferences, teachers can see the measurable results of testing. It is believed that these factors had a major impact upon the teachers' decision to change to a Fall testing date (one of the major changes that evolved, in the opinion of the authors).
2. As an outgrowth of the matching of items with curriculum objectives the Social Studies and Science tests of the ITBS were found not to assess the curriculum of the ECS (Note: the ITBS Social Studies and Science tests were never administered to students within the ECS). Teachers have developed an item bank of test items which have been used for the last three years. These test items (bank) are still being refined. It is believed that they more accurately assess the Social Studies and Science curriculum of the ECS.

A similar program, based upon teacher request, is being implemented in the high school mathematics

program. At the present time members of both high schools departments are in the process of modifying and changing their curriculum to match what was actually being taught. They had previously developed test item banks to assess what was actually being taught, but had never matched this with the adopted curriculum. After the curriculum revision is in place it is anticipated that the item bank of questions will be reviewed and rematched to the newly revised curriculum objectives.

3. As a result of this program it is believed that teachers have been focusing more instruction toward individual students and their strengths and weaknesses. This may be due to having better data more readily available. The availability of data to principals has also enabled these individuals to focus more of their time and attention upon the instructional concerns of their teachers.

4. As a result of this program the Report to Parents of their child's performance on the ITBS has been modified. This change was brought about through teacher-principal-central administration-parent participation.

5. As a result of this program additional analytical reports have been made possible and prepared for use by both building principals and central office administrative staff.

6. As a result of this program closer cooperation between university and public school personnel was developed.

This is a continuing and on-going relationship.

7. It should be noted that this testing program is only one of several facets of the total evaluation process of the ECS. There is a program of holistic scoring and evaluation of results of student essays at three selected grade levels. In addition a follow-up study of students who attended the ECS in the years 1969-70-71 and 1979-80-81 is presently being conducted. Also, an analysis of student performance in college for selected years has been conducted (Purdue University only), with data being sought from other schools at the present time. The important thing to remember is that an attempt is being made to match curriculum and student performance in several selected areas.

PROBLEMS

As with any new or different program this one has had its share of problems. The program, from its inception, has been constantly being modified and changed. These changes are still taking place, however not with the same rapidity as took place the first year or two.

One major change that has been made is that the volume of reports made available, particularly to teachers, has been cut down. During the first year or two teachers were literally being buried in reports. As a consequence of this "avalanche" they tended to be somewhat negative regarding the data available. The teacher committees and the principals, through constant feedback identified those reports which the teachers found most valuable

and those were the ones provided. Reporting forms are also being modified to provide data in a manner most easily understood by both teachers and principals. During meetings with teachers it was found that a non-judgmental approach was best. If they asked for data then provide it, if possible, and be patient in explaining exactly what was available - and some of its possible uses.

Building principals were particularly valuable in working with teachers. When they found the types of data that could be provided them - to enhance their role as instructional leaders - then they became supporters of this program.

One continuing problem is that of having the student numbers and names correctly recorded on the Scantron forms. Greater insistence upon building quality control and some modifications in the computer program at IUSB has improved this situation. When the planned in-house computer system is installed, hopefully within the next three years, this situation may be rectified by having all answer sheets pre-printed with these data and distributed to the teachers..

QUERIES

Queries regarding this program may be addressed to:

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Coordinator of Testing
Elkhart Community Schools
Education Services Center
2720 California Road
Elkhart, Indiana 46514

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South Bend, Indiana 46634

Telephone: 219-237-7339

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APPENDIX A

Overview of Testing Program - Grades 1 - 12

	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Grade 12
CogAT	X Spring		X Fall		X Fall		X Fall			
ITBS/TAP or other Achievement Battery	Reading Only Fall	X Fall	Reading Only Fall	Basic Fall	Reading Math Fall		TAP Fall			TAP Fall
General Performance Objectives by Subject	LangArt Math Soc St Science Fall	LangArt Math Soc St Science Fall	LangArt Math Soc St Science Fall	LangArt Math Soc St Science Fall	All Subjects Spring	All Subjects Spring	All Subjects Spring	All Subject Spring	All Subjects Spring	All Subjects Spring
Holistic Scoring Project		X Pre Po F S		X Pre Po F S		X Pre Po F S				

APPENDIX B-1

Analysis by Objective - Science/Health

NUMBER OF ITEMS CORRECT (GROUPED BY OBJECTIVE)

SCIENCE/HEALTH 3
20
01

ID	NAME	SCR	%ILE	OBJECTIVES III	II	I	IV
832916		18*	7	3	7	4	4
836906		23	18	2	7	7	7
845935		30	47	5	12	8	5
842928		36	82	6	14	9	7
836914		29	41	4	8	6	9
837368		33	63	5	12	9	7
836927		29	41	4	12	7	6
836930		35	76	7	13	6	9
837327		25	25	5	7	5	8
844340		20	11	1	9	3	7
834771		18*	7	2	11	5	0
836847		24	20	3	9	6	6
838288		32	57	4	12	7	9
836952		33	63	6	12	6	9
837115		16*	5	1	8	3	4
836956		24	20	4	5	7	8
837059		18*	7	4	6	2	6
836966		35	76	4	15	8	8
845855		10*	1	1	2	6	1
MAXIMUM POSSIBLE		45		8	16	11	10
AVERAGE				4	10	6	6

*IN SCORE COLUMN INDICATES A SCORE BELOW THE MINIMUM COMPETENCY LEVEL FOR THIS YEAR

EXPLANATION OF OBJECTIVES:

I	LIFE SCIENCES
II	PHYSICAL SCIENCES
III	EARTH SCIENCES
IV	HEALTH

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	SCR	%ILE	1	2	5	3	NM	A			
832916	20	28	2	1	2	1	1	2	1		
836906	21	32	1	0	1	0	3	2	2		
845935	32	77	2	3	2	1	2	2	4	5	
842928	41	97	3	2	2	2	3	9	6	5	
836914	31	73	3	3	2	1	3	9	3	4	
837368	27	57	3	4	1	2	3	4	0	4	3
836927	30	70	3	0	2	1	3	8	2	5	4
836930	32	77	3	2	2	2	3	6	2	4	4
837327	21	32	3	1	1	1	2	6	1	4	1
844340	27	57	2	2	2	2	3	7	2	3	4
834771	21	32	3	0	1	0	3	5	1	3	
836847	24	43	2	1	2	2	2	5	0	5	
838288	30	70	3	0	2	2	3	5	2	5	
836952	30	70	1	2	2	2	2	8	1	5	
837115	27	57	1	2	2	2	3	7	0		
836956	27	57	2	2	1	2	1	8	1		
837059	26	52	2	2	1	1	3	8	1		
836966	41	97	3	3	1	3	3	9	5		
845855	16	16	1	0	1	1	3	5	0		
MAXIMUM POSSIBLE	47		3	4	2	3	3	9	7	5	
AVERAGE			2	2	2	1	3	6	2	4	3

*IN SCORE COLUMN INDICATES A SCORE BELOW THE MINIMUM COMPETENCY LEVEL FOR THIS YEAR

EXPLANATION OF OBJECTIVES:

1	NAMES AND TITLES
2	DATES AND HOLIDAYS
3	PLACE NAMES
5	LINGUISTIC CONVENTIONS
NM	NO MISTAKES (CAPITALIZATION)
A	IDENTIFY SENTENCE FORMS
D	USE PUNCTUATION CORRECTLY
6	USE OF VERBS
7	USE OF PRONOUNS
8	USE OF MODIFIERS
9	USE OF CONTEXT
10	NO MISTAKES (USAGE)

Capitalization

Punctuation

Usage

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APPENDIX C-1

Item Analysis Report

ITEM ANALYSIS

SPELLING 6TH

[redacted]

ITEM NUMBR	PERCENT OF STUDENTS CHOOSING THIS 1	2	3	4	5	PERCENT-CORRECT UPPER THIRD	LOWER THIRD
39*	78*	2	4	4	13	100	55
40*	2	3	0	80*	16	83	80
41	3	3	42*	2	45	83	55
42	11	4	11	15	60*	94	35
43	0	56*	2	18	24	83	25
44	58*	2	5	0	31	78	45
45	11	60*	13	0	25	78	35
46	2	4	24	27*	44	44	15
47	60*	0	5	2	31	89	40
48	7	5	2	76*	7	89	60
49*	11	18	2	11	56*	83	30
50	56*	2	2	0	40	83	30
51	18	64*	2	0	16	94	40
52	5	9	49*	2	35	89	25
53	69*	2	2	13	15	94	40
54*	4	0	45*	5	44	72	35
55	0	47*	13	0	40	89	30
56	2	2	65*	2	29	78	35
57*	24	36*	0	4	36	44	25
58	4	5	25	47*	18	94	20
59	11	20	4	4	60*	94	30
60	58*	2	5	16	13	89	30
61*	0	47*	20	2	29	89	40
62*	4	5	40*	15	35	67	20
63	35*	5	11	16	31	67	15
64	11	16	49*	7	15	89	20
65	4	42*	4	4	45*	89	40
66*	0	31	31	24*	35	50	0
67	4	47*	7	0	38	67	30
68*	7	4	16	42*	29	83	5
69	58*	4	7	4	22	89	45
70	24	4	2	15	51*	67	25
71*	4	13	2	42*	29	78	50
72	0	53*	2	4	29	89	40
73	5	7	44*	4	29	83	20
74	45*	5	0	15	22	83	10
75*	2	11	4	35*	33	78	40
76	7	9	16	7	38*	61	15
77*	7	36*	5	9	22	56	20
78*	7	16	4	35*	15	72	10
79*	22	5	13*	5	31	11	5
80*	11*	5	7	7	25	61	10

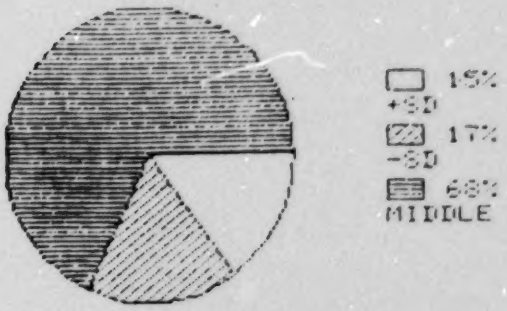
APPENDIX C-2

Comparison of School and District Scores

Composition

. EIP 3. COMP.

DISTRIBUTION



ECS, EIP 3, COMPOSITION

DISTRIBUTION

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BEARDSLEY EIP 3

COMPOSITIO

+SD	MID	-SD	
7	32	8	47
8.00	36.00	9.00	
.13	.13	.11	

CHI-SQUARE (2) = .37 P = .659?

APPENDIX C-3

Comparison of School and District Scores

Mathematics

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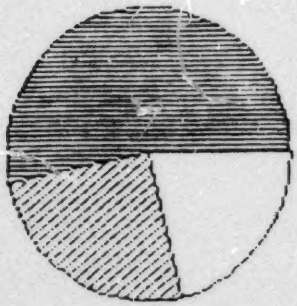
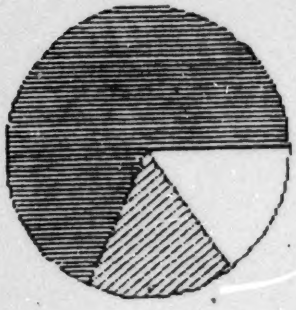
, EIP 3, MATH
DISTRIBUTION



21% -SD
26% +SD
53% MIDDLE

ECS, EIP 3 MATH
DISTRIBUTION



15% -SD
17% +SD
68% MIDDLE

BEARDLSEY EIP 3

MATHEMATIC

+SD	MID	-SD	
14	28	11	53
9.00	36.00	8.00	
2.78	1.78	1.13	

CHI-SQUARE (2) = 5.68 P = .0573

APPENDIX C-4

Comparison of School and District Scores

Reading

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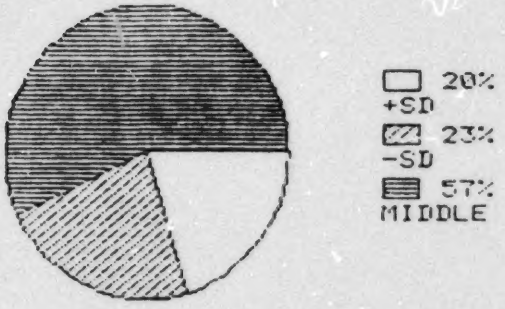
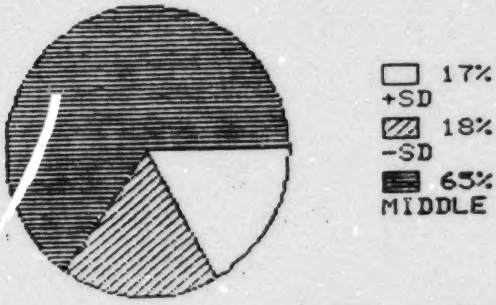
, EIP 3 READING
DISTRIBUTION



ECS EIP 3 READING SCORES
DISTRIBUTION



)PR#6
BEARDSLEY EIP 3

READING

+SD	MID	-SD	
10	29	12	51
9.00	33.00	9.00	
.11	.48	1.00	

CHI-SQUARE (2) = 1.60 P = .0542

APPENDIX C-5

Changes Recently Instituted in Reporting Format to Principals

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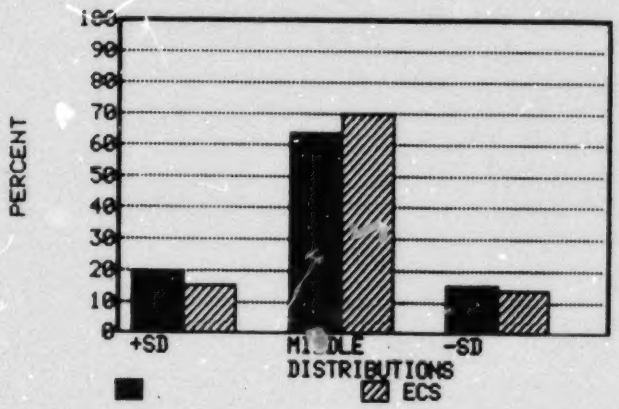
EIP 4 READING



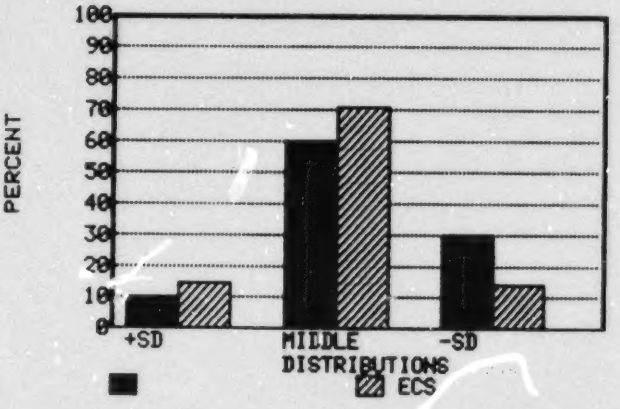
EIP 4

READING

+SD	MID	-SD	
12	39	10	61
10.00	43.00	8.00	
.42	.37	.50	

CHI-SQUARE (2) = 1.27 P = .5337

EIP 4 SPELLING



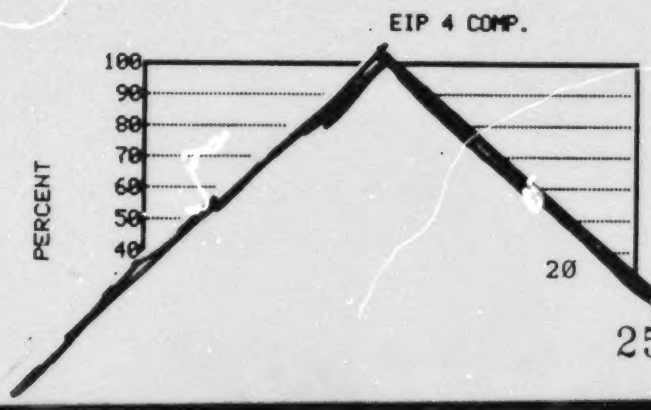
EIP 4

SPELLING

+SD	MID	-SD	
6	36	18	60
9.00	43.00	8.00	
1.00	1.14	12.50	

CHI-SQUARE (2) = 14.64 P = .001.

EIP 4 COMP.



EIP 4

COMPOSITI

+SD

BEST COPY AVAILABLE

NAME:
ID NUMBER:
SCHOOL:
TEACHER:
TEST DATE: